

09/29798/

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,362,007 B1
DATED : March 26, 2002
INVENTOR(S) : Lydie Meheus, Ann Union, Joseph Raymackers and Reinhard Georg Lührmann

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 7,

Line 51, before the word "any" insert the word -- to --.

Column 10,

Line 11, delete "-presented" and insert -- presented -- therefor.

Column 11,

Line 47, delete "examples" and insert -- example -- therefor.

Column 12,

Line 3, delete "However," and insert -- However, -- therefor.

Column 14,

Line 46, delete "a mating" and insert -- α -mating -- therefor.

Column 19,

Line 67, delete "Hi".

Column 23,

Line 55, delete "30,15" and insert -- 30, 15 -- therefor.

Column 39,

Line 14, delete " N^G-N^G " and insert -- N^G-N^G -- therefor.

Signed and Sealed this

Eighteenth Day of June, 2002

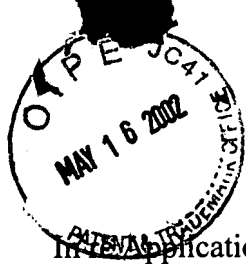
Attest:



Attesting Officer

JAMES E. ROGAN
Director of the United States Patent and Trademark Office

Cofc#
P



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Application of:

Lydie Meheus
Reinhard George Lührmann
Ann Union
Joseph Raymackers

US Patent No.: 6,362,007 **B1**

Issued: March 26, 2002

For: Methylated, SmD Homologous Peptides,
Reactive with the Antibodies from Sera
of Living Beings Affected with Systemic
Lupus Erythematosus

Atty. Dkt. No.: INNS:011
11362.0011.NPUS00

<p align="center">CERTIFICATE OF MAILING 37 C.F.R. 1.8</p> <p>I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date below:</p> <p>Date: APRIL 25, 2002 <i>Paula S. Linkhart</i> Paula S. Linkhart</p>
--

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents
Washington, D.C. 20231

Certificate
MAY 17 2002
of Correction

Enclosed are two originals of the form PTO-1050. Errors of a minor nature found in the above captioned patent are corrected thereon. Support for these corrections is found in the original specification and amendments. A Certificate of Correction is requested under 35 U.S.C. § 255.

The Commissioner is authorized to charge the fee of **\$100.00** to Deposit Account No. **01-2508/11362.0011.NPUS00**. Should any additional fees under 37 C.F.P. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from Deposit Account No. 01-2508/11362.0011.NPUS00.

HOWREY SIMON ARNOLD & WHITE, LLP
750 Bering Drive
Houston, TX 77057-2198
713.787.1400

Date: April 25, 2002

Respectfully submitted,

Patricia A. Kammerer
Patricia A. Kammerer
Reg. No. 29,775
Attorney for Assignee
INNNOGENETICS N.V.

UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

PATENT NO. : 6,362,007 **B 1**
 DATED : March 26, 2002
 INVENTOR(S) : Lydie Meheus, Ann Union; Joseph Raymackers; Reinhard Georg Lührmann

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 7, line 51, before the word "any" insert the word --to--.
 In column 10, line 11, delete "-presented" and insert --presented-- therefor.
 In column 11, line 47, delete "examples" and insert --example-- therefor.
 In column 12, line 3, delete "However" and insert --However,-- therefor.
 In column 14, line 46, delete "a mating" and insert -- α -mating-- therefor.
 In column 19, line 67, delete "Hi".
 In column 23, line 55, delete "30,15" and insert --30, 15-- therefor.
 In Claim 1, line 4, delete " N^G-N^G " and insert -- N^G-N^G -- therefor.

COL 39 Line 14

MAILING ADDRESS OF SENDER:
 Patricia A. Kammerer, Esq.
 HOWREY SIMON ARNOLD & WHITE, LLP
 750 Bering Drive
 Houston, Texas 77057-2198

PATENT NO. 6,362,007
 No. of add'l. copies
 @ 50¢ per page



UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,362,007
DATED : March 26, 2002
INVENTOR(S) : Lydie Meheus, Ann Union; Joseph Raymackers; Reinhard Georg Lührmann

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 7, line 51, before the word "any" insert the word --to--.
In column 10, line 11, delete "-presented" and insert --presented-- therefor.
In column 11, line 47, delete "examples" and insert --example-- therefor.
In column 12, line 3, delete "However" and insert --However,-- therefor.
In column 14, line 46, delete "a mating" and insert -- α -mating-- therefor.
In column 19, line 67, delete "Hi".
In column 23, line 55, delete "30,15" and insert --30, 15-- therefor.
In Claim 1, line 4, delete " N^G-N^G " and insert -- N^G-N^G -- therefor.

MAILING ADDRESS OF SENDER:
Patricia A. Kammerer, Esq.
HOWREY SIMON ARNOLD & WHITE, LLP
750 Bering Drive
Houston, Texas 77057-2198

PATENT NO. 6,362,007
No. of add'l. copies
@ 50¢ per page



-continued

<223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic

<400> SEQUENCE: 30

Glu Arg Ala Arg Gly Arg Gly Arg Gly Arg Gly Glu
 1 5 10

What is claimed is:

1. A Peptide containing less than 50 amino acids, comprising at least one dimer of the type XG, wherein X stands for a N^G -mono- or N^G - N^G -dimethylated arginine, asymmetrical dimethyl arginine, or N^G - N^G -dimethylated arginine, symmetrical dimethyl arginine, that is specifically recognized by antibodies present in sera from patients with systemic lupus erythematosus (SLE), and wherein said antibodies are specifically associated with SLE; and with said methylation being crucial for the recognition of the peptide by said antibodies.

2. The peptide according to claim 1 comprising the amino acid sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6, SEQ ID NO 7, SEQ ID NO 8, SEQ ID NO 9, SEQ ID NO 10, SEQ ID NO 11, SEQ ID NO 12, SEQ ID NO 13, SEQ ID NO 14, SEQ ID NO 15 or, an analog of any of SEQ ID NO 1-15, wherein the analog has an amino acid sequence identical to the respective SEQ ID NO except that the analog comprises conservative amino acid substitutions at one or more positions, where the conservative amino acid substitutions are selected from the following: Thr, Gly, or Asn substituted for Ser; His, Lys, Glu, or Gln substituted for Arg; Ile, Met, Phe, Val, or Tyr substituted for Leu; Ala, Thr, or Gly substituted for Pro; Pro, Ser, Ala, Gly, His, or Gln substituted for Thr; Pro, Gly, or Thr substituted for Ala; Met, Ile, Tyr, Phe, or Leu substituted for Val; Ala, Thr, Pro, or Ser substituted for Gly; Met, Leu, Phe, Val, or Tyr substituted for Ile; Met, Tyr, Ile, Leu, Trp, or Val substituted for Phe; Phe, Trp, Met, Ile, Val, or Leu substituted for Tyr; Ser, Thr, or Met

10

substituted for Cys; Gln, Arg, Lys, Glu, or Thr substituted for His; Glu, His, Lys, Asn, Thr, or Arg substituted for Gln; Asp, Ser, or Gln substituted for Asn; Arg, Glu, Gln, or His substituted for Lys; Asn, Glu, or Gln substituted for Asp; Gln, Asp, Lys, Asn, His or Arg substituted for Glu; and Ile, Leu, Phe, or Val substituted for Met.

3. The peptide of claim 1 fused to a linker molecule.

4. A peptide comprising tandem repeats of at least two of any of the peptides of claim 1.

20

5. A diagnostic kit for use in detecting antibodies which specifically bind SmD antigens said kit comprising at least one peptide according to claim 1, with said peptide optionally bound to a solid support.

25

6. A diagnostic kit according to claim 5, said kit comprising at least one peptide according to claim 1, optionally in combination with native methylated SmD1 or SmD3 and recombinant unmethylated SmD1 or SmD3, wherein said peptides are attached to a solid substrate.

30

7. A diagnostic kit according to claim 5 wherein said solid support is a membrane strip.

8. The peptide according to claim 1 wherein X stands for N^G -mono- or N^G - N^G -dimethylated arginine.

35

9. The peptide according to claim 1 comprising the amino acid sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6, SEQ ID NO 7, SEQ ID NO 8, SEQ ID NO 9, SEQ ID NO 10, SEQ ID NO 11, SEQ ID NO 12, SEQ ID NO 13, SEQ ID NO 14, or SEQ ID NO 15.

* * * * *